

In the Claims

Claims 11-16 and 32 were cancelled in the Response filed July 7, 2004.

New claims 37-48 are entered herein.

1. (Previously presented) A thermal plastic expanded foam rectangular meat tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having an inside corner angle of 90 degrees;

each of the side walls having an inclined lower section and an upper section that extends upward terminating in a lip that extends outward around the periphery of the tray;

the upper wall section having an alignment corner surface on an inside surface of each perpendicular corner inclined in a vertical plane and extending upward and outward to the lip at each of the four corners, each alignment corner surface in a horizontal plane comprising a curved arc having an inside corner entrance opening defining an angle that is greater than 90 degrees and less than 180 degrees and specifically provided to receive an internal complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic

expanded foam web, and each inclined corner surface in a vertical plane forming an obtuse angle with the bottom wall that is less than a corresponding obtuse angle formed between a corresponding lower wall section and the bottom wall;

wherein the curved arc of the alignment corner surface is limited to each of the four corners on the inside surface;

wherein an outer surface of the inclined lower section and the alignment corner surface cooperate to provide a bifurcated alignment structure during trimming of the tray; and

further wherein the outer surface of the inclined lower section cooperates, during a severing operation, with a female die member to provide a coarse alignment structure, and the alignment corner surface of the upper section cooperates with a complementary alignment surface of an alignment fixture on a male member to provide a fine alignment structure.

2. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein the upper sections of the side walls have inside reinforcing ribs formed therein in which the inclined alignment corner surfaces are indented into the ribs at the corners of the side walls.

3. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein at least one of the inclined alignment corner surfaces extends upward and outward to the lip at a steep angle of between 94 degrees and 105 degrees relative to the bottom wall.

4. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein at least one of the inclined alignment corner surfaces extends upward and outward to the lip at a steep angle of between 94 degrees and 100 degrees relative to the bottom wall.

5. (Original) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein the lower sections of the side walls are inclined upward and outward at an angle of between 110 degrees and 140 degrees relative to the bottom wall.

6. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein at least one of the inclined alignment corner surfaces in a horizontal plane is curved having an arc of greater than 90 degrees relative to a center of curvature.

7. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein at least one of the inclined alignment corner surfaces is curved and wherein the curved inclined corner surface extends upward and outward to the lip at a steep angle of between 94 degrees and 105 degrees.

8. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein the lower sections of the side walls are inclined upward and outward relative to the bottom wall at an inclined angle of between 110 degrees and 140 degrees and wherein at least one of the inclined alignment corner surfaces is curved and wherein the curved inclined alignment corner surface extends upward and outward to the lip at a steep angle of between 94 degrees and 105 degrees.

9. (Original) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein the upper section of the side walls has inside wall surfaces that are ribbed and extend upward and outward between the lower section and the lip at an inclined angle relative to the bottom wall of between 110 and 140 degrees.

10. (Previously Presented) The thermal plastic expanded foam rectangular meat tray as defined in claim 1 wherein the alignment corner surfaces each comprise a discrete

indented surface that is conical shaped having a steep angle of between 94 and 105 degrees relative to the bottom wall.

11-16. (Cancelled)

17. (Previously presented) A thermal plastic expanded foam rectangular meat tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

side walls extending upward and outward from the bottom wall integrally interconnected to each other at four 90 degree inside corners;

each of the side walls having a lower section with an inclined inside surface and an upper section that extends upward terminating in a lip that extends outward around the periphery of the tray; and

the upper section having a discrete alignment corner surface recessed into an internal surface of each 90 degree inside corner inclined in a vertical plane and extending upward and outward to the lip at the four corners, each alignment corner surface in a horizontal plane comprising a curved arc covering an angle that covers an inside corner angle of more than 90 degrees, but less than 180 degrees to provide a complementary inside corner entrance opening, and each inclined inside corner surface in a vertical plane forming an obtuse angle with the bottom wall that is less than a corresponding obtuse angle formed between the lower section and the bottom wall to

provide a conical alignment surface at each corner configured to interact with an alignment structure of an article trim press, and wherein each alignment corner surface is formed in an indented rib section that is formed in the upper wall section of each of the side walls.

18. (Previously Presented) The meat tray of claim 17 wherein the conical alignment corner surface is specifically provided to receive an internal complementary mating corner alignment fixture of a trim press to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web by the trim press.

19. (Previously Presented) The meat tray of claim 17 wherein the lower section provides a coarse alignment surface and the conical alignment corner surface of the upper section provides a fine alignment surface.

20. (Previously Presented) The meat tray of claim 19 wherein an outer surface of the lower section and the conical alignment corner surface cooperate to provide a bifurcated alignment structure including the outer surface of the lower section which cooperates during a severing operation with a female die member to provide a coarse alignment structure and the conical alignment corner surface of the upper section which cooperates with a complementary alignment surface of an alignment fixture on a male die member to provide a fine alignment structure.

21. (Previously presented) A molded plastic overwrap tray, comprising:

- a bottom wall;
- a plurality of side walls extending upward and outward from the bottom wall, each of the side walls having an inclined lower section and an upper section that extends upward and outward around the periphery of the tray with adjacent side walls providing an inside corner angle;
- the upper wall section having a plurality of spaced-apart alignment corner surfaces inclined in a vertical plane and extending upward and outward to the periphery of the tray, each alignment corner surface in a horizontal plane comprising a curved arc defining an angle that is greater than a respective one of the inside corner angles and specifically provided to create an increased alignment surface area and to receive an internal complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web, and each inclined corner surface in a vertical plane forming an obtuse angle with the bottom wall that is less than a corresponding obtuse angle formed between the lower wall section and the bottom wall, and wherein each alignment corner surface is formed in an indented rib section that is formed in the upper wall section of each of the side walls.

22. (Previously Presented) The tray of claim 21 wherein the bottom wall comprises a rectangular bottom wall and the at least one side wall comprises four side

walls configured in a rectangular array such that each inside corner angle is 90 degrees and with adjacent pairs of the side walls each forming a generally rectangular corner therebetween.

23. (Previously Presented) The tray of claim 22 wherein the plurality of spaced-apart internal inclined alignment corner surfaces comprises four spaced-apart internal alignment inclined corner surfaces, one provided at each corner of the tray, and wherein each corner surface provides a conical alignment surface forming a steep obtuse angle in a vertical plane relative to the bottom wall.

24. (Previously Presented) The tray of claim 23 wherein each internal inclined alignment corner surface is recessed into an inner surface of an adjacent pair of the side walls so as to provide a concave, conical alignment corner surface therein.

25. (Previously Presented) The tray of claim 21 wherein each internal inclined alignment corner surface comprises an arcuate alignment shoulder formed in the corner and recessed relative to an inner surface of the corner adjacent the alignment shoulder.

26. (Previously presented) A thermal plastic expanded foam rectangular tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having an inside corner angle of 90 degrees;

each of the side walls having an inclined lower section and an upper wall section that extends upward terminating in a lip that extends outward around the periphery of the tray; and

the upper wall section having an alignment corner surface on an inside surface of each perpendicular corner inclined in a vertical plane and extending upward and outward to the lip at each of the four corners, each alignment corner surface in a horizontal plane including an arc having an opening, the arc defining an angle that is greater than 90 degrees and less than 180 degrees to produce an increased alignment surface area when compared to a right-angled corner surface, the opening defined by the arc specifically provided to create an increased alignment surface area and also to receive an outwardly extending corner element of a complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web, and wherein each alignment corner surface is formed in an indented rib section that is formed in the upper wall section of each of the side walls.

27. (Previously Presented) The tray as in claim 26, wherein the upper wall section comprises:

an inside surface;

an outside surface; and

a plurality of reinforcing rib members formed on the inside surface.

28. (Previously Presented) The tray as in claim 27, wherein the rib members are formed so as to not extend to the outside surface.

29. (Previously Presented) The tray as in claim 27, wherein an outer surface of the inclined lower section and the alignment corner surface cooperate to provide a bifurcated alignment structure during trimming of the tray.

30. (Previously Presented) The tray as in claim 29, wherein the outer surface of the lower section cooperates, during a severing operation, with a female die member to provide a coarse alignment structure and the alignment corner surface of the upper section cooperates with a complementary alignment surface of an alignment fixture on a male member to provide a fine alignment structure.

31. (Previously Presented) The tray as in claim 26, wherein each alignment corner surface is conical in shape and includes a wide curved arc in the horizontal plane and a steep inclined shallow conical wall element in the vertical plane.

32. (Cancelled)

33. (Previously presented) A thermal plastic expanded foam rectangular tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having a right-angled inside corner;

each of the side walls having an inclined lower section and an upper wall section, the upper wall section extends upward terminating in a lip that extends outward around the periphery of the tray, the upper section of the side wall having an inside surface and an outside surface, and wherein the inside surface includes a plurality of reinforcing ribs configured to provide extra stiffness to the upper wall section;

wherein the upper wall section has an alignment corner surface on the inside surface, the alignment corner surface is inclined in a vertical plane and extends upward and outward to the lip at each of the four corners, wherein each alignment corner surface in a horizontal plane includes an arcuate surface formed as a recessed section into the plurality of ribs, and wherein the alignment corner surface is formed in an indented rib section that is formed in the upper wall section of each of the side walls;

wherein the recessed section is limited to an arcuate surface area formed by the corners of the side walls, an angle defined by the arcuate surface being greater than 90

degrees and less than 180 degrees to produce an increased alignment surface area when compared to a right-angled corner surface, and

wherein an opening defined by the arcuate surface is specifically provided to receive an outwardly extending corner element of a complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web.

34. (Previously presented) A thermal plastic expanded foam rectangular tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having a right-angled inside corner;

each of the side walls having an inclined lower section and an upper wall section, the upper wall section extends upward terminating in a lip that extends outward around the periphery of the tray, the upper section of the side wall having an inside surface and an outside surface, and wherein the inside surface includes a plurality of reinforcing ribs configured to provide extra stiffness to the upper wall section;

wherein the upper wall section has an alignment corner surface on the inside surface, the alignment corner surface is inclined in a vertical plane and extends upward and outward to the lip at each of the four corners, wherein each alignment corner surface

in a horizontal plane includes an arcuate surface formed as a recessed section into the plurality of ribs;

wherein the recessed section is limited to an arcuate surface area formed by the corners of the side walls, an angle defined by the arcuate surface being greater than 90 degrees and less than 180 degrees to produce an increased alignment surface area when compared to a right-angled corner surface;

wherein a radius of the alignment corner surface is greater than a radius of a corner accompanying the alignment corner surface;

wherein a curved arc radius sweep of the alignment corner surface is greater than a curved arc radius sweep of the corner accompanying the alignment corner surface, and a surface area of a frustoconical portion formed by the alignment corner surface is greater than a surface area of a frustoconical portion that would otherwise be formed by the corner accompanying the alignment corner surface; and

wherein an opening defined by the arcuate surface is specifically provided to receive an outwardly extending corner element of a complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web.

35. (Previously presented) A thermal plastic expanded foam rectangular meat tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having an inside corner angle of 90 degrees;

each of the side walls having an inclined lower section and an upper section that extends upward terminating in a lip that extends outward around the periphery of the tray;

the upper wall section having an alignment corner surface on an inside surface of each perpendicular corner inclined in a vertical plane and extending upward and outward to the lip at each of the four corners, each alignment corner surface in a horizontal plane comprising a curved arc having an inside corner entrance opening defining an angle that is greater than 90 degrees and less than 180 degrees and specifically provided to receive an internal complementary mating corner alignment fixture to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web, and each inclined corner surface in a vertical plane forming an obtuse angle with the bottom wall that is less than a corresponding obtuse angle formed between a corresponding lower wall section and the bottom wall, wherein an outer surface of the inclined lower section and the alignment corner surface cooperate to provide a bifurcated alignment structure during trimming of the tray, and further wherein the outer surface of the inclined lower section cooperates, during a severing operation, with a female die member to provide a coarse alignment structure, and the alignment corner surface of

the upper section cooperates with a complementary alignment surface of an alignment fixture on a male member to provide a fine alignment structure; and

wherein the alignment corner surface has a larger radius limited locally to the curved arc, and the alignment corner surface forming a steep angle in a vertical plane compared to the angle formed between a corresponding lower wall section and the bottom wall.

36. (Previously presented) A thermal plastic expanded foam rectangular tray trimmed from a thermal plastic expanded foam web, comprising:

a substantially rectangular bottom wall;

four side walls extending upward and outward from the bottom wall integrally interconnected to each other at four perpendicular corners each having a right-angled inside corner;

each of the side walls having an inclined lower section and an upper wall section, the upper wall section extends upward terminating in a lip that extends outward around the periphery of the tray, the upper section of the side wall having an inside surface and an outside surface;

wherein the upper wall section has an alignment corner surface on the inside surface, the alignment corner surface is inclined in a vertical plane and extends upward and outward to the lip at each of the four corners, the alignment corner surface is formed in an indented section provided in the upper wall section of each of the side walls;

a reinforcing member at each of the four corners is provided at least in part by a respective one of the indented sections;

wherein each alignment corner surface in a horizontal plane includes an arcuate surface formed as a recessed section into the reinforcing member;

wherein the recessed section is limited to an arcuate surface area formed by the corners of the side walls, an angle defined by the arcuate surface being greater than 90 degrees and less than 180 degrees to produce an increased alignment surface area when compared to a right-angled corner surface;

wherein the alignment corner surface has a larger radius that is limited locally to the arcuate surface when compared to a radius of a corner accompanying the alignment corner surface; and

wherein an opening defined by the arcuate surface is provided to maintain the tray accurately aligned at the corners as the tray is being trimmed from the thermal plastic expanded foam web.

37. (New) A thermal plastic expanded foam tray well comprising:

a bottom wall;

first and second opposite side walls extending upwardly from the bottom wall, the first and second side walls each having an inside and an outside, the outside of each of the first and second opposite side walls including a rough alignment surface extending upwardly and outwardly from the bottom wall and forming a first angle of between 110

degrees and 140 degrees relative to the bottom wall, the inside of each of the first and second opposite side walls including a surface extending upwardly and outwardly from the bottom wall and being generally parallel to the outside rough alignment surface; and

first and second opposite end walls extending upwardly from the bottom wall, the first and second end walls each having an inside and an outside, each end wall extending from and connecting the first side wall to the second side wall, corners being defined where the end walls meet the side walls, the side walls, end walls, and bottom wall all being integrally formed, an upper lip being defined by uppermost surfaces of the side walls and end walls, four corners being formed at the intersections of side walls and end walls, each corner having an inside surface and outside surface, two, diametrically opposite ones of the corners having fine alignment surfaces formed therein, configured to engage complementary surfaces of alignment fixtures to maintain the tray in alignment during trimming, the alignment surfaces each extending downwardly from the lip at an angle of between 94 degrees and 105 degrees relative to the bottom wall, which is less than the first angle, whereby the rough alignment surfaces provide for rough alignment and the fine alignment surfaces provide for finer alignment, and the alignment surfaces only being provided in the corners.

38. (New) A thermal plastic expanded foam tray well in accordance with claim 37 wherein the alignment surfaces are formed in the outside surfaces of the diametrically opposite corners.

39. (New) A thermal plastic expanded foam tray well in accordance with claim 37 wherein alignment surfaces are formed in the inside surfaces of the diametrically opposite corners.

40. (New) A thermal plastic expanded foam tray well in accordance with claim 39 wherein additional alignment surfaces are formed in the outside surfaces of the diametrically opposite corners.

41. (New) A thermal plastic expanded foam tray well in accordance with claim 37 wherein a plurality of coplanar surfaces, parallel to the bottom wall, are defined in the inside surfaces of the corners, which can be used for alignment along a direction normal to the bottom wall.

42. (New) A thermal plastic expanded foam tray well comprising:
a bottom wall;
first and second opposite side walls extending upwardly from the bottom wall, the first and second side walls each having an inside and an outside, the outside of each of the first and second opposite side walls including a surface extending upwardly and outwardly from the bottom wall and forming a first angle relative to the bottom wall, the

inside of each of the first and second opposite side walls including a surface extending upwardly and outwardly from the bottom wall; and

first and second opposite end walls extending upwardly from the bottom wall, the first and second end walls each having an inside and an outside, each end wall extending from and connecting the first side wall to the second side wall, corners being defined where the end walls meet the side walls, the side walls, end walls, and bottom wall all being integrally formed, an upper lip being defined by uppermost surfaces of the side walls and end walls, four corners being formed at the intersections of side walls and end walls, each corner having an inside surface and outside surface, two, diametrically opposite ones of the corners having alignment surfaces formed therein, configured to engage complementary surfaces of alignment fixtures to maintain the tray in alignment during trimming, the alignment surfaces each extending downwardly from the lip at an angle, relative to the bottom wall, which is less than the first angle, and the alignment surfaces only being provided in the corners.

43. (New) A thermal plastic expanded foam tray well in accordance with claim 42 wherein the alignment surfaces are formed in the outside surfaces of the diametrically opposite corners.

44. (New) A thermal plastic expanded foam tray well in accordance with claim 42 wherein alignment surfaces are formed in the inside surfaces of the diametrically opposite corners.

45. (New) A thermal plastic expanded foam tray well in accordance with claim 44 wherein additional alignment surfaces are formed in the outside surfaces of the diametrically opposite corners.

46. (New) A thermal plastic expanded foam tray well in accordance with claim 42 wherein a plurality of coplanar surfaces, parallel to the bottom wall, are defined in the inside surfaces of the corners, which can be used for alignment along a direction normal to the bottom wall.

47. (New) A thermal plastic expanded foam tray well comprising:

a bottom wall;

first and second opposite side walls extending upwardly from the bottom wall, the first and second side walls each having an inside and an outside, the outside of each of the first and second opposite side walls including a surface extending upwardly and outwardly from the bottom wall and forming a first angle relative to the bottom wall, the inside of each of the first and second opposite side walls including a surface extending upwardly and outwardly from the bottom wall; and

first and second opposite end walls extending upwardly from the bottom wall, the first and second end walls each having an inside and an outside, each end wall extending from and connecting the first side wall to the second side wall, corners being defined where the end walls meet the side walls, the side walls, end walls, and bottom wall all being integrally formed, an upper lip being defined by uppermost surfaces of the side walls and end walls, four corners being formed at the intersections of side walls and end walls, each corner having an inside surface and outside surface, two, diametrically opposite ones of the corners having inside alignment surfaces formed therein, configured to engage complementary surfaces of alignment fixtures provided above the tray to maintain the tray in alignment during trimming, the alignment surfaces each extending downwardly from the lip at an angle, relative to the bottom wall, which is less than the first angle, and wherein a plurality of coplanar surfaces, parallel to the bottom wall, are defined in the inside surfaces of the corners, which can be used for alignment along a direction normal to the bottom wall, the coplanar surfaces only being defined in the corners.

48. (New) A thermal plastic expanded foam tray well in accordance with claim 47 wherein the coplanar surfaces are closer to the lip than to the bottom wall.